ABSTRACT

METHOD AND SYSTEM OF TRACKING MISSING PACKETS IN A MULTICAST TFTP ENVIRONMENT

A method, system, and program product for efficiently tracking lost data packets in a multicast TFTP network environment. An algorithm is encoded within the receiving client processing system that tracks received packets within a 64Kbit tracking array. The array is stored in memory. If the number of packets of a file being transmitted is larger than 64K, the algorithm performs a grouping function, by which each set of two neighboring spaces within the array are combined. Combining of the spaces involves ANDing the spaces together, and the ANDed results stored within a single space indicates whether or not the packets within the group needs to be re-requested. Thus if either one of the values in the spaces is a zero (indicating that the corresponding packet is lost) then the combined space is tagged with a zero. In this way, when the client is determining which packet(s) or groups to re-request, the client checks the array for holes (i.e., 0's) and re-requests the packet(s) represented by each hole found.